Chapter 5
Barriers and Incentive Options for Encouraging Pipeline Replacement or Improvements

5.0 Barriers and Incentive Options

As noted earlier in Chapter 1, Section 51015.05 of the California Government Code requires that CSFM investigate incentive options that would encourage pipeline replacement or improvements, including, but not limited to, a review of proposed regulatory, permit, and environmental impact report requirements and other proposed public policies that could act as barriers to the replacement or improvement of these pipelines.

To this end, on January 31, 1996, EDM Services distributed a questionnaire regarding incentive options and barriers to pipeline replacements and/or improvements. 231 questionnaires were distributed to:

- operators of CSFM-regulated hazardous liquid pipelines,
- all participants in this study,
- State regulatory and jurisdictional agencies,
- local communities with a high density of oil and gas activity (e.g. San Luis Obispo, Santa Barbara, and Ventura), and
- members of the Pipeline Assessment Steering Committee.

The questionnaire contained 14 questions designed to gather information on, measure attitudes toward, and obtain suggestions about proposed or potential incentives and barriers to pipeline replacement and/or improvement. Respondents were allowed one month to complete the written questionnaire, although considerable latitude was given to those who needed additional time. In all, 28 responses were received; a rate of response well within the bounds of acceptability for this method of study design and implementation. Nine completed questionnaires were obtained from regulatory or jurisdictional agencies and 19 were received from operators (both majors and independents). In addition, nine of the respondents stated in one form or another that their

company/agency could offer no comments to the CSFM on these particular issues. One respondent provided comments only on the initial permitting process due to a lack of experience in replacing or improving pipelines. Though not specified in the questionnaire, respondents were allowed to provide answers and case studies for pipeline projects that are not included in AB 3261 or otherwise a part of this study.

The responses were analyzed by BDM/Oklahoma and this chapter was authored by BDM/ Oklahoma=s Deborah Pratt and Jerry Simmons using the responses received. Pratt and Simmons also developed the conclusions and recommendations sections concerning Incentives/Barriers in Chapters 6 and 7.

In the following analysis of the questionnaire results, some classifications and groupings of answers have been employed. First, a distinction was made between responses from regulatory agencies, on the one hand, and private companies on the other; due largely to observable differences in emphases and in the qualitative nature of the responses. Second, with regard to incentive options, a distinction was made between what can be termed "negative" and "positive" incentives. As used in this report, "negative" incentives refer to those actions (or suggested actions) taken by government agencies in response to pipeline leaks, non-compliance, etc. These incentives are often punitive in nature and seek to deter undesirable behavior or correct it after the fact. "Positive" incentives refer to those actions taken by regulatory agencies that seek to *reward* operators who have a history of sound regulatory compliance, thus engendering continued attention to issues of pipeline safety.

The first set of questions targeted potential and/or proposed incentive options available to regulating agencies. In each case, respondents were asked to identify incentives that would encourage pipeline replacements or improvements and indicate how these incentives should be implemented. The reader should note that respondents were not required to rigidly adhere to the format, but were afforded the opportunity to fully explain their responses and provide case studies where appropriate. The following is a summary of the responses to potential and/or proposed "incentives options".

5.1 Responses from Regulatory Agencies - Incentives

Negative Incentives

In one form or another, the most commonly cited potential and/or proposed negative incentives by regulatory agencies pertain to changing the nature and scope of the consequences of pipeline leaks and non-compliance. Possible consequences included:

- civil penalties,
- require replacement or re-conditioning of sections of pipeline that have "excessive" leak history,
- require reduced operating pressures for pipelines with "excessive" leak history,
- increase inspection of poorly maintained pipelines with identified integrity problems, and
- assess all annual fees based on the degree to which the pipeline is "leak prone".

Positive Incentives

The following "positive" incentives were most often suggested by the regulatory agencies:

- reduce inspection of new pipelines after a sound regulatory compliance history has been established,
- extend the time between required hydrostatic tests under State law for new or replaced pipelines,
- allow operators to use an alternative test method in lieu of the hydrostatic test,
- provide a "good service award" for the pipeline company with the most reconditioned or replaced sections of pipeline,
- provide assistance (financial and otherwise) to companies that are obtaining permits and authorizations to do replacements and/or improvements,
- adopt "regional guidelines and processes" for pipeline activities that promote environmental, safety, and health concerns,
- reward compliant operators with expedited government reviews,
- establish cooperative emergency response planning and resources, and
- categorically exclude pipeline replacements or improvements from the California Environmental Quality Act (CEQA).

5.2. Responses from Pipeline Operators - Incentives

Not surprisingly, suggested incentives by operators were skewed toward the positive side; that is, the number of *positive* incentives exceeded the number of *negative* incentives by almost nine to one. The following is a summary of the incentives suggested by the operators:

Negative Incentives

- issue fines to operators for every leak, incident, or other "negative" situation.

Positive Incentives

- reduce inspection frequencies/scope,
- streamline the permitting process (i.e. "one-stop-shopping"),
- reduce the frequency with which hydrostatic testing must be conducted,
- reduce/eliminate CSFM fees on pipelines that have been replaced or improved,
- provide for an automatic negative declaration of adverse environmental impact for pipeline replacement or repair projects being done to improve safety,
- formally recognize operators and individuals, (e.g. positive press releases, plaques, letters, notices of commendation, annual luncheon/dinner to recognize pipeline safety achievements, etc.),
- establish a fund to reimburse (or partially reimburse) corporate investments in technologies that reduce leaks and incidents, ensure compliance, etc., and
- establish an Operator Pipeline Safety Leadership Committee to provide ongoing recommendations to CSFM on pipeline safety issues.

5.3 Incentive Implementation

There were very few specific responses which provided input regarding how these incentives could be implemented. However, the idea of establishing some sort of a task force garnered support from both regulatory agencies and operators. The following implementation suggestions were offered by the participants.

- Create a joint industry/government task force in a partnering process to review promising ideas and determine feasible implementation,
- Implement all incentives at the regulatory "staff" level as opposed to hearings, appeals processes, etc.
- Leave the decision to replace or repair a pipeline "solely with the individual pipeline operator."

5.4 Summary of Questionnaire Results: Barriers

The second set of questions targeted perceived barriers to pipeline replacement projects. Respondents were asked to identify barriers, describe the actual and potential consequences of these barriers, and suggest ways in which the barriers could be mitigated. Although the questionnaire clearly distinguished between *barriers* and *incentives*, there was some overlap in the responses to each; that is, similar responses were received for both types of questions. In addition, seven of the nine regulatory agencies did not respond to questions on barriers citing, for the most part, a lack of relevant case histories of projects which have been delayed, deferred or canceled because of regulatory, permit or environmental impact barriers. A significant portion of the responses, therefore, came from the operators who responded to the questionnaire.

Regulatory Barriers, Permitting Barriers, and EIRs

By far the most commonly cited barriers to replacing or improving pipelines involve the permitting process. Across the board, operators indicated that these processes: (1) take far too long; (2) demand an unrealistic allocation of expenditures; and (3) may unnecessarily put the environment and the safety and health of the public at risk. Some of the difficulties expressed by respondents include:

- obtaining construction permits from various cities in a timely manner,
- obtaining Negative Declaration Status (often taking up to 18 months),
- acquiring an "Endangered Species Management Agreement" (2081 permit),
- complying with CEQA requirements due to implementation variances from county to county,

- erroneous application by the local fire department of city regulations to jet fuel pipelines (the "more is better" school of regulation),
- slow responses by local transportation and public works departments (One operator stated that it can take up to six months for a local department of transportation to decide on a relevant CEQA standard.),
- California Government Code Sections 51013 and 51014 regarding hydrostatic testing,
- franchise agreements requirements,
- local agency street opening excavation or building permit process,
- California Coastal Commission and BCDC permit processes, and
- Environmental Impact Reports.

5.5 Actual and Potential Consequences of Barriers

According to respondents, the actual and potential consequences of the identified barriers are predominately financial; although environmental, safety, and health consequences were also noted with some regularity. *There is a tremendous amount of concern among the operators that pipeline improvements/replacements have become so costly and cumbersome that they no longer have any incentive to be proactive in these matters*. In fact, one respondent stated that replacements and improvements are now considered "...only as a last resort to all other options."

Environment, public safety and health consequences were also noted by some respondents. For example, in one case, an operator proposed to install and operate internal corrosion inhibitor storage and injection facilities at its pump station facilities in a particular county. The initially proposed project took more than 18 months from application submittal to receipt of construction approvals and permits. Although other temporary measures were taken by the pipeline operator, these measures involved more risk that the actual proposed project and delayed the implementation of a more desirable corrosion inhibitor program; fortunately, pipeline integrity was not impacted by this delay. Other commonly cited consequences include:

- unnecessary and unrealistic expenditures of time and financial resources,

- project delays, deferrals, or elimination,
- actual amount of pipe replaced is decreased,
- hydrostatic testing requirements are accelerating leaks and leading to the generation of contaminated waste water, and
- marginal gathering lines are no longer being replaced by some operators.

5.6 Removing Barriers

The overwhelming consensus of the study=s participants is that the *permitting process* must be streamlined. One of the primary areas of concern involves jurisdictional issues. Many respondents (both regulators and operators) expressed a desire to eliminate overlapping agency and redundant requirements. As one operator stated,

> Although the respondents consensus was that the permitting process must be streamlined, it should be noted that some local agencies have made recent improvements to improve their processes. One county cited the issuance of minor use permits, instead of the more typical conditional use permits which require Planning Commission approval for pipeline upgrade projects. Emergency permit processes have also be developed to allow immediate pipeline work when circumstances warrant.

With respect to the CSFM in particular, respondents appear to want mechanisms to ensure that counties or other agencies (such as local fire, planning and health departments) do not impose requirements or regulate pipeline safety issues that fall under the exclusive authority of the CSFM. The most common suggestions for jurisdictional streamlining are as follows:

- develop Memoranda of Understanding which address problem areas and identify primary agency responsibilities,
- create or designate a single State agency with sole jurisdiction over pipeline issues, and

- establish the USDOT as lead permitting agency for pipeline maintenance projects for interstate pipelines

Respondents also provided the following suggestions about specific regulations, possible modifications, exemptions, and timing:

- consistently implement the Long Term Programmatic Permit for Threatened and Endangered Species among the different BLM Resource Area Offices for maintenance projects,
- develop a clear procedure (or flow chart) of required documents,
- set time limits for BLM to complete permit applications once received by the appropriate office,
- apply smart pigging requirement to new pipelines only,
- limit the requirement to upgrade all components within a line section when only a small replacement is required,
- eliminate periodic hydrostatic testing requirements on existing pipelines,
- provide categorical exemption under CEQA for pipeline replacement projects under the jurisdiction of the CSFM,
- eliminate the county billing method, and
- exempt pipeline safety replacement projects from EIRs.

5.7 Case Studies

Following are a few case studies and excerpts from the completed questionnaires. It should be noted that due to time constraints, many of the local agencies did not have an opportunity to develop specific case study responses. The reader should also note that the information presented in these case studies has not been independently verified, nor has a methodologically sophisticated analysis of the results been conducted. Hence, the excerpts below should not necessarily be taken as fact or considered to be representative of the entire sample of respondents. The intent of the questionnaire, and of this portion of the report, was to identify public policies that *could* act, or be perceived as barriers to the replacement or improvement of pipelines and, similarly, to identify possible incentive options that would encourage these

activities. The reader should note that the actual responses have been edited to remove the actual company and agency names.

A. We are attempting to replace and relocate a portion of an acetylene welded pipeline within the City A. A section of this pipeline runs through a school property. The only alternative to relocate this section would be to obtain new right-of-way through the City B. City B is not cooperating and is essentially telling us that they do not want to take on City A=s problem. This delay has caused the pipe not to be relocated to an area safer to the public.

B. CEQA is the most significant regulatory barrier. The implementation of CEQA varies significantly from county to county. Some counties have planning departments that take the CEQA issues to the Anth@ degree. As a illustration, a permit from County A for one pump station and one 10.5 mile pipeline has 109 permit conditions ... The permit costs are substantial; the 1995 permit fees from County A for this permit were about $192M. Probably one third of that was attributed to new construction in the pump station. The construction work required a Supplemental EIR that cost the operator in excess of $100M and took over 2 years to get approved. ..... Most of the pipeline replacement work that the operator undertakes is due to corroded pipe identified from internal inspections (smart pigging). We believe that permitting delays of 1-2 years is an excessive amount of time to wait when we know that the pipe is corroded. The actual consequences of the permitting barriers is that the operator does not replace pipe as quickly as it could without the barriers and the amount that could be replaced is less than it would be if the resource burdens of permitting were less. This tends to increase risk. Also we have stopped replacing marginal gathering lines. The economics of these pipelines can not justify the cost of preparing a development plan or a minor use permit and the expensive permitting process. We have begun the petition process with CPUC to begin shutting down these lines. The oil from the leases that these lines serve will have to be trucked.

C. This project was voluntarily proposed to reduce the risk of an environmental incident. The State Lands Commission strongly supported getting this work done but it was strictly up to us to take the initiative to get the permits. ..... Platform A lies about 2.5 miles off the California coast. It produces about 4,500 barrels of oil per day and 3 million cubic feet of gas per day. The oil and associated water are piped to a separation plant on the beach through a single 6-inch subsea pipeline. The sour gas is piped to the same plant for sweetening, dehydration and compression through a separate 6-inch subsea pipeline. The platform was installed along with the two pipelines in 1966. Mitered bends of 30° were used in the pipelines at the beach in the surf zone for a direction change. Miter bends are

not typically used for this purpose. Curved or manufactured bends are usually used for direction changes in pipelines. Today, electronic inspection tools known as Asmart pigs@ are pumped through pipelines to inspect the condition of the pipelines. These tools are usually about 10 to 12 feet long and are segmented to go around bends. The segments are too long to make it through a miter bend, so the miters must be replaced with curved bend pieces if an inspection is to be done on the lines. We would like to electronically inspect the condition of these 1966 vintage pipelines to insure that they are still in good condition. Annual pressure tests of these lines have not resulted in any problems or failures to date. A break or leak in the oil line would, of course, result in oil getting in the ocean. Replacement of these lines in their entirety would cost 3 to 5 million dollars and would take 2 to 3 years to permit, if permittable at all, under the current permit conditions.

This project involves simply cutting out the miter bends and welding in long radius bends. This is essentially four 6-inch pipeline cuts and eight 6-inch pipe welds. The previous 50% owner and operator of the operation started getting proposals to replace these miter bends in 1983. When we took over operating and 100% ownership in 1993, the previous operator still did not have permits to do this job. We started working on a design and permit application in the second quarter of 1994. This included many meetings with the county staff, the fire department and the county building department to insure compliance with all regulations and to negotiate the conditions imposed by these agencies. The application for county Planning and Development Plan Permit and Conditional Use Permit were officially submitted in December 1994. Additional permits required were:

- County Coastal Development Plan permit,
- California Coastal Commission Coastal Development Plan permit,
- U.S. Army Corps permit which require California Regional Water Quality Control Board (RWQCB) waiver or certification under the section 401 of the Clean Water Act, and
- California State Lands Commission approval.

The Coastal Commission=s Coastal Development Plan permit is essentially the same as the county CDP but it can=t be applied for until the county DP and CUP are approved. The Army Corps approval can=t be obtained until the California Coastal Commission CDP is received.

The whole process is burdened with redundancy. The county and Coastal Commission look at exactly the same issues and scrutinize these issues independently, wasting large amounts of time and money. The staff report by the county was over 100 pages. The State Lands Commission is the only agency that has the technical expertise to look at the mechanics of how this tidal zone job is being done. Yet the procedure was reviewed and scrutinized by the county planning department, the fire department, the county building department and the California Coastal Commission.

The county charges to for staff time for this project amount to somewhere in the neighborhood of $40,000 for review and staff report preparation. (Remember this is for a project requiring 4-6@ pipeline cuts and 8-6@ pipeline welds.)

Prior to ever getting to the planning commission=s Hearing Board, the county staff placed conditions in the staff report on the project; and, the applicant and county staff have a one-sided negotiation on these issues. We have very little leverage to get anything changed. The county took the opportunity to add operational conditions that had not been required or necessary in the past 30 years of operation and required acceptance in order to get the staff report finalized for the commissioners. For example, on very rare occasions the beach sections of the pipelines become completely uncovered by natural sand transport during the stormy season. Usually this occurs between January and March. We, as prudent operators, always watched the lines to insure they were not damaged or did not move around too much in the surf during time period. A new condition for the remaining life of the pipelines states that we must shut down the entire production operation when more than 20 feet of the 16,000 foot long pipeline is exposed in the surf zone and there are 12-foot high waves. This means we would be required by permit to shut down the production operation under the stated conditions event if there was no risk to pipelines. Another condition is that we must visually inspect the pipeline every day of the year and keep a written log for County inspection. This requirement disregards that over 300 days a year there is absolutely no sign of pipelines on the beach, so this requirement is an expensive waste of manpower. Another extreme condition requires draining the flush water, which is ocean water, from the pipe prior to cutting the pipe. This is following flushing the lines to a point where the flush water had less than 30 ppm Oil and Grease content. To drain the water we will have to hot tap a weld-o-let on the pipeline and drain the flush water out of the section of the pipe uphill of the cut point. This was proposed by us in an effort to get around having a Clean Seas vessel on location and avoid a job shutdown because of a sheen. In addition we are required to have over 400 foot of absorbent boom on site for spill protection. All this for .03 gallons (calculated at 30 ppm) of oil in the 1000 feet of 6-inch pipeline which was uphill of the cut.

To summarize, this is a project that we voluntarily proposed to protect the environment and insure we would not have an oil spill incident. It is what should be a simple job but will probably end up costing over $250M to do plus four days of lost production at $30,000 to $40,000 per day lost revenue. In a normal setting, this job would be much less costly and time consuming. It would have been done years ago and there would be many electronic inspection records by now that could be used to develop trends on pipe degradation. We would be able to accurately predict when and if a pipe problem would occur.

The economic considerations for this asset have changed recently. We no longer intend to perform this repair until we have determined the future of this operation. The subject of the miter bend replacement would not be at issue now if the permitting process would have been reasonable and timely. The miter bends would have been replaced by the prior operator years ago or by us in 1994.

This situation could easily be improved by making one agency responsible for reviewing this type of work. Then have policies that allow practical, common sense judgments on issues of how to do the job based on the end result being much better than the current condition. Eliminate the redundancy of multiple agencies looking at the same thing and rely on the agency that has the most technical expertise to review the project. Eliminate the county billing method that encourages 100 page documents for what would be a half day job in another location. There is no incentive for county staff to be efficient and effective.